

CLAIMS

1. A system for assisting the regeneration of depollution means (1) associated with oxidation catalyst-forming means (2) implementing an OSC function, constituting a
5 supply of oxygen and integrated in an exhaust line (3) of a motor vehicle diesel engine (4), in which the engine is associated with common rail means (7) for feeding its cylinders with fuel, the system being characterized in that it comprises means (8) for analyzing the running
10 conditions (9) of the vehicle and for comparing them with predetermined threshold values (10), to control the engine in a first regeneration mode of operation with a lean mixture (11) when running conditions are above the threshold values, or in a second regeneration operating
15 mode implementing sequences in which engine operation alternates between stages of rich mixture operation and of lean mixture operation (12) when conditions are below the threshold values.
- 20 2. A system according to claim 1, characterized in that the depollution means comprise a particle filter (1).
3. A system according to claim 2, characterized in that the particle filter includes a catalyst.
- 25 4. A system according to any preceding claim, characterized in that the depollution means comprise a NOx trap.
- 30 5. A system according to any preceding claim, characterized in that the fuel includes an additive that is to be deposited together with the particles with which it is mixed on the depollution means in order to facilitate regeneration thereof.
- 35 6. A system according to any preceding claim, characterized in that the depollution means (1) are

impregnated with an SCR formulation, performing a function of oxidizing CO/HC.

7. A system according to any preceding claim,
5 characterized in that the engine (4) is associated with a turbocharger (5, 6).

8. A system according to any preceding claim,
characterized in that the running conditions are
10 determined from:

- the load on the engine;
- its running speed;
- the speed of the vehicle; and/or
- the temperature level in the vehicle exhaust line.